

REMARKS

Claims 1-31 are still pending in the patent application.

In paragraph 1 of the Official Action, claims 1-31 are now rejected under 35 U.S.C. §103(a) as being unpatentable over a new three reference proposed combination of Colonna et al. (U.S. Patent No. 6,115,620) in view of Kim (U.S. Patent No. 6,397,078), and further in view of a newly cited reference, Tyneski et al. (U.S. Patent No. 5,584,054).

The rejection is respectfully traversed on the basis that neither Colonna et al., Kim, Tyneski et al. nor the proposed combination thereof teaches or suggests an electronic device featuring a touch sensitive circuitry located in a movable slide. This feature is clearly recited in the middle of claim 1, i.e. "... a movable housing element being mounted movably on the housing, responsive to a contact force applied by the user, and having touch sensitive circuitry ...".

The Claimed Invention

Applicant's claimed invention provides a new and unique two-part device wherein the movable part on the main body is sliding along the main body, contains a touch sensitive circuitry and means for operating the same and means for reading the contact from the touch sensitive area, and means for detecting the position of the movable part. Additionally, applicant's claimed invention provides a device, where the movable part is a slide,

and the slide has a touch sensitive circuitry that can be used to read the contact from the user.

In the claimed invention, the touch sensitive circuitry is placed in the slide and it is used to replace the keyboard of the device. The benefit for this is that the thickness of the keyboard is reduced. Also the amount of needed wires between the slide and main body is reduced compared to a device having a conventional keyboard with mechanical buttons. Yet another benefit is that the claimed device does not need a separate keyboard and touch screen.

The Main Argument

In a response submitted on August 25, 2003, the Patent Office withdrew a previous rejection to the claims based on the proposed combination of Colonna et al. in view of Kim. In the most recent Office Action, the claims are now rejected based on the proposed combination of Colonna et al., Kim and the newly cited Tyneski et al.. In effect, Tyneski et al. is being cited now to make up for the deficiency in teaching of the proposed combination of Colonna et al. in view of Kim. In particular, page 3, first two full paragraphs, correctly states that:

"[C]olonna does not teach a touch sensitive circuitry such that the circuitry is located on the moveable part." However, it is respectfully submitted that Tyneski et al. does not make up for this deficiency. Clearly, Tyneski et al. does not disclose a

movable housing element having touch sensitive circuitry as claimed in the instant patent application and as this term is known and used in the art. Instead, Tyneski et al.'s front cover 104 has keys 108 (Figure 1) with pressure surfaces 204 (Figure 2) that contact activation areas 206 (Figure 2) of the display 202. Similar to Colonna et al. and Kim, Tyneski et al.'s front cover 104 does not contain touch sensitive circuitry, as claimed herein. So the main argument is that neither Colonna, Kim nor Tyneski et al. teaches that touch sensitive area is located in the slide. This feature is clearly recited in the middle of the claim 1: "... a movable housing element being mounted movably on the housing, responsive to a contact force applied by the user, and having touch sensitive circuitry ...". For this reason, it is respectfully submitted that the obviousness rejection should be reconsidered and withdrawn.

Additional Arguments in Support of Patentability

It is respectfully submitted that the proposed combination of Colonna et al., Kim and Tyneski et al. relates to three references that disclose very different electronic devices than the claimed invention and relate to known devices in the art that are trying to solve very different problems than the claimed invention.

Colonna et al.

For example, as stated in Applicant's August 25th response, in Colonna et al., the first housing element 202 contains communications electronics, while the movable housing element 204 does not. The first housing element 202 provides a communication signal based on a force position signal indicative of the position of contact on the keypad 206 of the first housing element 202, not the movable housing element 204. In other words, Colonna et al.' movable housing element 204 does not contain touch sensitive circuitry for providing a force position signal, as claimed herein.

In addition, the problem aimed at solving by Colonna et al. is completely different from that of the claimed invention. Colonna et al. is solving the problem of altering the volume of the speaker in the communications device according to the distance from the user's ear. This solution is achieved by sensing the mode of the device from the position of the movable housing element, and adjusting the volume to be louder if the device is in the hands-free mode and softer if the device is in the private mode. There is no hint, mention or suggestion that the position of the contact force would be or should be sensed, as was also recognized by the reasoning in paragraph 1 of the Office Action. However, it is recognized and understood by the undersigned that the reasoning in paragraph 1 of the Office Action is merely presenting this reference to show that two-part

portable communication devices are known in the art.

Kim

In comparison, as also stated in Applicant's August 25th response, Kim discloses a mobile telephone PDA device 10 having a sliding keypad 16 with control keys and buttons 22, 23, 28, as best shown in Figure 3. As described in Kim, column 2, lines 54-58, the keypad 16 is electrically connected to an electrical support member 18 (shown in Figure 4), which includes operating electronics (not shown), by contacts 19 on the rear of the keypad 16 (shown in Fig. 5) and electrical contacts (not shown) on the front of the electrical support member 18. In Kim's mobile telephone PDA device 10 the touch sensitive is located in the main body, not in the movable slide as in the claimed invention.

The problem that Kim is solving is to provide a combination of mobile phone and a personal digital assistant (PDA). For this purpose, Kim presents an arrangement where a touch sensitive display is attached to a mobile phone. The main reason for Kim's choice to place the touch sensitive area at the main body is that it is attached to the display of the device. As discussed above, in the claimed invention the touch sensitive area is placed in the slide and it is used to replace the keyboard of the device, which reduces the thickness of the keyboard, reduces the amount of needed wires between the slide and main body, and eliminates the need for a separate keyboard and touch screen.

Tyneski et al.

In Tyneski et al., which is the newly cited reference, the touch sensitive display in main body and a front cover with mechanical keys is used to provide a dialing capability to user. The benefit of this device is that no electronics is needed in the front cover, just keys.

The Proposed Combination

Assuming, for argument sake, that one skilled in the art would be motivated to combine the teachings of Colonna, Kim and Tyneski, it is respectfully submitted that the result at best would be a combined PDA and mobile phone with touch sensitive display in the main body, a slide with mechanical keyboard that can be slid along the main body (as in Fig. 3 in Kim application) and also raised and turned 180 degrees to show the touch sensitive display. And where the keys in the cover can be used to apply the pressure to the display when dialing. However, it is respectfully submitted that such a combination not only does not result in the claimed invention for the aforementioned reasons, but also merely results from the use of hindsight since there cannot be found specific teaching as to why the references would be motivated to combine the same. Such a teaching is not found in any of the cited references, or otherwise on the record as a whole.

Dependent Claims 2-3

Claims 2-3 depend directly or indirectly from claim 1, contain all the limitations thereof, and are deemed patentable over the proposed combination for all the reasons discussed above.

Moreover, it is respectfully submitted that the reasoning in paragraph 1 of the Office Action appears to be overlooking the "touch sensitive slide" limitation recited in claim 2. It is respectfully submitted that neither Colonna et al., Kim nor Tyneski suggests such a touch sensitive slide or slidably mounted arrangement.

Independent Claim 4

Claim 4 recites a communications device featuring a touch sensitive slide being mounted movably on the main body for sliding along the main body, and touch sensitive slide circuitry for providing the touch sensitive slide signal indicative of the position of the contact force in relation to at least one dimension of the touch sensitive slide.

For reasons similar to those discussed above, none of the three cited references suggests a communications device featuring such a movable housing element with touch sensitive circuitry for providing a force position signal indicative of the position of a contact force thereon by a user in relation to at least one dimension of the movable housing element to a main body having a

communications circuit, as recited in claim 4.

Dependent Claims 5-31

Claims 5-30 depend directly or indirectly from claim 4, contain all the limitations thereof, and are deemed patentable over the proposed combination for all the reasons discussed above. Claim 31 recites that the touch sensitive slide has a keyboard surface and is responsive to the contact force being applied on the keyboard surface.

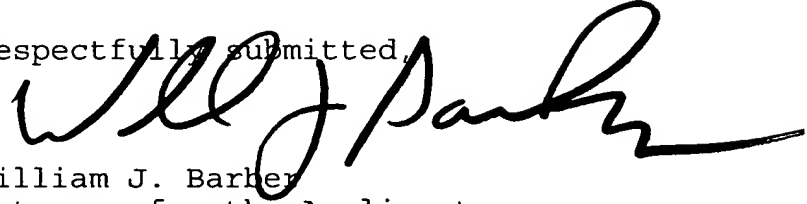
Lefort

An additional reference Lefort is also cited on the record, which describes a mobile device with extendable keyboard. It is respectfully submitted that, in Lefort, there is no new relevant aspect that has not already shown in other cited references.

Conclusion

Reconsideration and early allowance of the claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'William J. Barber', written over the typed name.

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